

Drosera pedicellaris (Droseraceae), a new species from south-west Western Australia

Allen Lowrie

6 Glenn Place, Duncraig, Western Australia 6023

Abstract

Lowrie, A. *Drosera pedicellaris* (Droseraceae), a new species from south-west Western Australia. *Nuytsia* 15(1): 59–62 (2002). A new species, *Drosera pedicellaris* Lowrie, is described and illustrated. It is related to *D. parvula* Planchon and is known from only two localities in the south-west of Western Australia.

Introduction

Since the treatment of *Drosera* L. (Droseraceae) in “Flora of Australia” was published (Marchant & George 1982), a number of additional members of the genus from south-western Australia have been delimited or newly discovered. One new species that was discovered in 1997 is described here. It belongs in sect. *Rorella* of *Drosera* subgen. *Rorella* (DC.) Diels. Members of sect. *Rorella* are known as the Pygmy Droseras because of their minute size, with plants ranging from about 1 to 4 cm in diameter. They are also characterized by having a prominent central stipule bud, asexually reproducing by gemmae, and a great variety of flower colours including white, pink, yellow, metallic orange or combinations of these colours, often with a black, maroon, red or purple centre.

Including the new species, 44 species of Pygmy *Drosera* are now recognised. All are found in south-west Western Australia, with one species (*D. pygmaea*) extending to all other states (except Northern Territory) of Australia as well as New Zealand.

Taxonomy

Drosera pedicellaris A. Lowrie, *sp. nov.*

Drosera parvulae Planchon affinis sed apice gemmae stipulae parte laxa byssacea acuta carenti: petalis albis prope basim macula distincta rubro-marronina carenti; bracteolis per inflorescentias praesentibus; pedicellis longissimis differt.

Typus: Dookanooka Rd, c. 15 km south-west of Three Springs, 29°39'S, 115°39'E, Western Australia, A. Lowrie 1980, 14 November 1997 (*holo:* PERTH 05849489; *iso:* MEL).

A fibrous-rooted *perennial herb* with leaves semi-erect (inner younger ones) and more or less horizontal (older outer ones), arranged in an open rosette, 1–1.8 cm diam., older specimens always positioned above the soil surface. *Stem* 8–15 mm long, covered with the remains of previous seasons' leafy growth. *Active leaves* 12–20 per rosette, often reduced in number towards the end of anthesis; petiole 4–5 mm long, 0.4–0.5 mm wide at the base, 0.7–0.8 mm wide just above the base then tapering to 0.1–0.2 mm wide at the lamina, semi-lenticulate in section c. 0.2 mm thick, sparsely covered with a few scattered translucent-white minute glands on the adaxial and abaxial surface as well as the margins. *Lamina* ± orbicular, 0.9–1.3 mm diam., adaxial surface with insect-catching glands positioned around the margins and smaller glands within, abaxial surface sparsely glandular. *Stipule bud* broadly ovoid, shaggy, fimbriate, 5–6 mm long, 4–5 mm diam. at the base; stipules 4.5–6 mm long, 2.5–3.5 mm wide, 0.8–1 mm wide at the base, 3-lobed; central lobe lacerated into 3 segments, each divided into 3–4 laciniae at the apex, lateral segments upper outer margins serrate, lateral lobes upper outer margins serrate, remainder entire, apex and inner margin divided into 6–7 laciniae, the innermost lacinia exceeding the longest laciniae of the central lobe. *Flowering stems* 1–3 per basal rosette, 3.5–5.5 cm (mostly 4–5 cm) tall, very sparsely covered with translucent-white glandular trichomes c. 0.05 mm long; scape thread-like; cyme helicoid, with 15–20 or more flowers. *Pedicels* 5–6 mm long, horizontal and semi-erect in fruit within the same inflorescence, sparsely covered with translucent-white glandular trichomes c. 0.05 mm long. *Bracteoles* filiform, 0.8–1 mm long, c. 0.05 mm wide at the base, glabrous. *Sepals* broadly ovate to elliptic, 1–1.2 mm long, 0.8–1 mm wide, lowermost margins entire, upper margins and apex ± irregularly dentate, surface bearing a few scattered translucent-white glandular trichomes near the base. *Petals* adaxial surface white with a green wedge-shaped section at the base, abaxial surface white, obovate, margins entire, apex ± crenate, 2.8–3.5 mm long, 1.7–2.2 mm wide. *Stamens* 5, 0.6–0.8 mm long, filaments greenish white, anthers white with reddish spots, pollen glassy orange. *Ovary* greenish white, turbinate, c. 0.6 mm long, c. 0.6 mm diam. *Styles* 3, reddish at the base remainder white, almost horizontal, terete, c. 0.1 mm diam., c. 0.5 mm long; stigmas white, almost horizontal, terete, 1–1.5 mm long, gradually dilated to 0.12–0.15 mm diam. near the centre and towards the rounded apex, papillose. *Gemmae* broadly ovate, c. 1 mm long, c. 0.7 mm wide, c. 0.4 mm thick. *Seed* ± ellipsoid, 0.4–0.5 mm long, 0.35–0.4 mm diam.; micropyle c. 0.05 mm long, c. 0.05 mm diam.; testa black, very shallowly reticulate. (Figure 1)

Other specimen examined. WESTERN AUSTRALIA: Welton Well Rd, 29°42'S, 115°42'E, 14 Nov. 1997, A. Lowrie 1982 (PERTH).

Distribution. Known from two locations 7.4 km apart from each other in an area c. 15 km south-west of Three Springs.

Habitat. Grows in deep beige sand soils between and under low shrubs on heathland.

Phenology. Flowering October to November.

Conservation status. Conservation Codes for Western Australian Flora: Priority One. *Drosera pedicellaris* is currently only known from two locations, but is locally abundant at both localities and it is highly probable that with further exploration more locations for this species will be found (see notes below). The taxon is not believed to be under threat but is in need of further survey.

Etymology. The epithet *pedicellaris* is named from the Latin *pedicellus* – pedicellate, and the suffix *aris* – provided with, in reference to the long distinctive pedicels of this species.

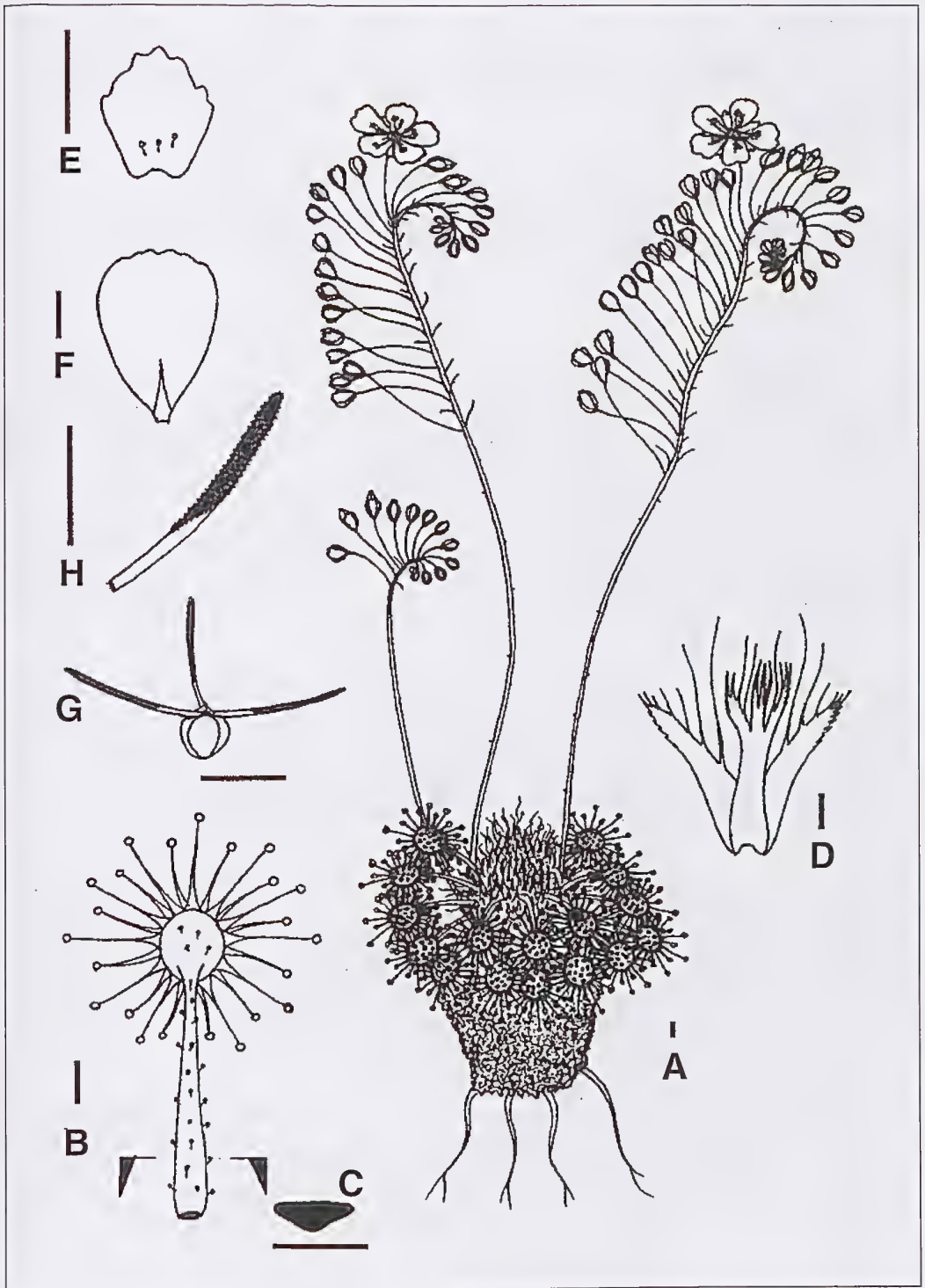


Figure 1. *Drosera pedicellaris*, drawn by A. Lowrie in 1997 from live material from the type location. A – habit; B – leaf; C – transverse section of petiole; D – stipule; E – sepal; F – petal; G – gynoecium; H – style. All scale bars = 1 mm.

Affinities. *Drosera pedicellaris* may be confused with *D. parvula* Planchon (as illustrated in Lowrie 1989: 134–137) which also has small white flowers. *D. pedicellaris* is easily distinguished from this species by having a stipule bud lacking a loose point at the apex, white flowers lacking a distinctive reddish maroon spot near the base of each petal, bracteoles present throughout the inflorescence, and very long pedicels.

Within the pygmy *Drosera* section only one other taxon from the sand plains north of Perth, *D. nitidula* subsp. *allantostigma* Marchant & Lowrie (as illustrated in Lowrie 1989: 90–93), which also has small white flowers, has very long pedicels like *D. pedicellaris*. *D. nitidula* subsp. *allantostigma* is easily distinguished from *D. pedicellaris* by its pedicels being pendulous in fruit and by its red reniform stigmas.

Notes. The beige soils at the two distant locations of *Drosera pedicellaris* are similar, supporting similar vegetation. Exploration of many other soil types, such as yellow sand, white silica sand, laterite soils and clayey white sands along the roadsides and tracks in an area c. 15 km long and wide around the type location failed to reveal the presence of further populations of *D. pedicellaris*. It was only when the typical beige soils of the type location were encountered again that the second location for this species was found. Specificity of soil type has been observed for a majority of the pygmy *Drosera* taxa.

Fortunately a sizable area of natural vegetation presently exists between the two known populations of *Drosera pedicellaris*. It is therefore possible that more of the typical beige sand habitats apparently preferred by *D. pedicellaris* may be found in other areas off the many other roads and tracks in this region that have yet to be explored.

Acknowledgements

I would like to thank Paul Wilson for his assistance with the Latin diagnosis; Barbara Rye for her comments, and the staff of the Western Australian Herbarium.

References

- Lowrie, A. (1989). "Carnivorous Plants of Australia." Vol. 2. (University Press of Western Australia: Nedlands.)
Marchant, N.G., & George, A.S. (1982). *Drosera*. In: "Flora of Australia." Vol. 8, pp. 9–64.